

In the claims:

1 (Currently Amended). An electronic breathing system comprising a source of compressed air, a facemask for receiving air from said source, a demand valve responsive to a decrease in pressure in said facemask to regulate the flow of air to said facemask, a first stage regulator disposed between said source of compressed air and said demand valve and operative to reduce the pressure of said compressed air to approximately 50 to 120 psi, an exhalation valve responsive to an increase in pressure in said facemask to allow air to escape from said facemask, a pressure transducer to monitor pressure in said facemask, and a microprocessor to control the operation of said demand valve and said exhalation valve.

2 (Original). A system according to claim 1 wherein said demand valve comprises a piston linearly moveable by means of a motor.

3 (Original). A system according to claim 2 wherein said piston comprises a seat pad which cooperates with a valve seat to control the flow of air to said facemask.

4 (Original). A system according to claim 1 wherein said exhalation valve comprises a piston linearly moveable by means of a motor.

5 (Original). A system according to claim 4 wherein said piston is housed in a valve body.

6 (Original). A system according to claim 4 wherein

said piston cooperates with a valve seat to control the flow of air from said facemask.